

# Document made available under the Patent Cooperation Treaty (PCT)

International application number: PCT/IL05/000313

International filing date: 17 March 2005 (17.03.2005)

Document type: Certified copy of priority document

Document details: Country/Office: US  
Number: 60/553,601  
Filing date: 17 March 2004 (17.03.2004)

Date of receipt at the International Bureau: 29 April 2005 (29.04.2005)

Remark: Priority document submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b)



World Intellectual Property Organization (WIPO) - Geneva, Switzerland  
Organisation Mondiale de la Propriété Intellectuelle (OMPI) - Genève, Suisse

PCT/IL 2005/000313  
14 APR 2005

PA 1298373

# THE UNITED STATES OF AMERICA

**TO ALL TO WHOM THESE PRESENTS SHALL COME:**

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

March 23, 2005

THIS IS TO CERTIFY THAT ANNEXED HERETO IS A TRUE COPY FROM THE RECORDS OF THE UNITED STATES PATENT AND TRADEMARK OFFICE OF THOSE PAPERS OF THE BELOW IDENTIFIED PATENT APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A FILING DATE UNDER 35 USC 111.

APPLICATION NUMBER: *60/553,601*

FILING DATE: *March 17, 2004*

By Authority of the  
COMMISSIONER OF PATENTS AND TRADEMARKS



P. SWAIN  
Certifying Officer

Please type a plus sign (+) inside this ☐

Docket Number:

2451/3

# PROVISIONAL APPLICATION FOR PATENT COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53 (c).

INVENTOR(S)/APPLICANT(S)						
Given Name (first and middle (if any))		Family Name or Surname		Residence (City and either State or Foreign Country)		
EMANUEL		COHEN		JERUSALEM, ISRAEL		
<input type="checkbox"/> Additional inventors are being named on page 2 attached hereto						
TITLE OF THE INVENTION (280 characters max)						
METHOD OF MATCHING CANDIDATE SELECTION FOR A JOB, TO THE REQUIREMENTS OF A SPECIFIC ORGANIZATION, BY CREATING AN ORGANIZATION-SPECIFIC JOB PROFILE						
CORRESPONDENCE ADDRESS						
Direct all correspondence to:			<input type="checkbox"/> Customer Number <input type="text"/>			
			Place Customer Number Bar Code Label here			
OR						
<input type="checkbox"/> Firm or Individual Name		Mark M. Friedman				
Address		c/o DISCOVERY DISCOVERY				
Address		9003 FLORIN WAY				
City		UPPER MERLBORO		State	MD	ZIP
Country		US		Telephone	301-952-1011	Fax
						20772
						301-952-9023
ENCLOSED APPLICATION PARTS (check all that apply)						
<input checked="" type="checkbox"/>	Specification	Number of Pages	7	Applicant is Small Entity		
<input type="checkbox"/>	Drawing(s)	Number of Sheets		<input checked="" type="checkbox"/>	Other (specify)	Assignment
METHOD OF PAYMENT OF FILING FEES FOR THIS PROVISIONAL APPLICATION FOR PATENT (check one)						
<input type="checkbox"/>	A check or money order is enclosed to cover the filing fees					FILING FEE AMOUNT
<input checked="" type="checkbox"/>	The Commissioner is hereby authorized to charge filing fees or credit any overpayment to Deposit Account Number:					\$80 + 40
The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.						
<input checked="" type="checkbox"/>	No.					
<input type="checkbox"/>	Yes, the name of the U.S. Government agency and the Government contract number are:					

Respectfully submitted,

SIGNATURE

DATE

15 MAR 04

TYPED or PRINTED NAME

Mark M. Friedman

REGISTRATION NO.

33,883

(if appropriate)

TELEPHONE

(703) 415-1581

USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT

SEND TO: Box Provisional Application, Assistant Commissioner for Patents, Washington, DC 20231

**METHOD OF MATCHING CANDIDATE SELECTION FOR A JOB, TO  
THE REQUIREMENTS OF A SPECIFIC ORGANIZATION, BY  
CREATING AN 'ORGANIZATION-SPECIFIC JOB PROFILE'**

Inventor Name: Emmanuel Cohen  
Address: 6 Bruria St, Jerusalem, Israel

Assigned to: Amitronics Ltd.  
Address: Malcha Technology Park, Jerusalem Israel

**Field and Background of Invention**

The invention relates to an assessment method used to select the suitable candidate(s) (from a pool of candidates) for target position(s) in any organization. The invention seeks to overcome one of the predominant difficulties in hiring new employees: the lack of ability to cross **match** the right personality and abilities of a candidate, with the requirements demanded by a **specific** organization, and subsequently predict who, then among all the candidates would be the most suited for a certain position in particular circumstances.

In spite of numerous candidate screening and testing techniques, on the market which give **general, descriptive** assessment on a candidate, as of yet there is no accurate enough way to cross-reference between those screening results, and the specific environment (i.e. the company), where the candidate is intended for employment. This is owed to the fact that human nature is too complex for a simple assessment analysis, to reach high prediction level in this area.

The invention offers a computerized technique, which identifies that specified match, by defining the correlation between a) the abilities of current employees and b) their success (performance level) in the organization – This correlation is a proven basis for checking candidates, because essentially, performance evaluation would prove to be the crucial axiom for candidate suitability prediction.

Another utilization of this method can be applied to the tasks of 'Matching Managers to their Subordinates', i.e. the ability to discern in large scale organizations abundant with line-managers, whom among the existing or potential employees will best match the requirements and management style of each manager.

**Summary of Invention**

The invention adopts a different approach for better, improved prediction of candidate's performance in a certain environment. The current approaches for solving this problem are:

1. Test the candidate on general abilities, and whoever gets the best score is considered to be the best one.

2. Test the candidate on 'industry specific' abilities – Usually, based on history of testing in various organizations, over a long period of time.
3. Test the candidate on parameters, previously gathered within the organization. This approach assumes that the main abilities of top performers, will serve as the basis for finding the 'future' top performers – e.g. if the most successful employees are mostly Assertive, with a relatively Strong memory and with a high level of basic general knowledge - This is what should inherently be looked for, regarding candidates applying for the same position. This is the '**linear grading approach**'.

The above three techniques ignore important critical truths, like:

- a. Each organization has different standards and requirements, which could significantly lower predictions of a 'standard' assessment.
- b. The predictive validity of the 'linear approach' is not that high. Human beings have proven to be a repository of intricate traits of varying levels (including some that are not openly perceived) – and a successful professional is not always the one who ranks among the top not always good) in all his/her attributes.

This invention takes a '**non-linear approach**', by finding the set of rules which create the best correlation between the existing employees, and their level of success in the organization. To do so, one needs a very complex, computerized modeling program, which yields that correlation out of huge amount of combinations. But, once, and if, it is found – **It will prove to be the most efficient predictive formula to predict success for new hires.**

In the description below, this process is explained.

### **Terminology**

- Attribute (AT) – An ability/characteristic of a person (examples: visual memory, friendliness, stress tolerance).
- Ability Test (ABT) – A test which checks one, or a few, attributes.
- Attribute Score (ATS) - A grade given to the person, following a test, for a certain attribute.
- Performance success criteria (PSC) – A certain criteria which the employer measures the employee by, within the job the employee is currently performing (examples: productivity, serviceability).
- Employer's Evaluation (EVAL) – A grade given to the person, by the employer, which reflects the performance of the employee, in a certain PSC, in a certain job.
- Correlation Formula (CF) – A formula which contains set of rules, involving ATS's which give the best correlation for a certain job. CF is SPECIFIC to a certain job, in a certain organization.
- Correlation Formula Score (CFS) – The grade given to a person, based on the CF. NOTE: CFS is SPECIFIC to a certain job, in a certain organization.

## Process

**Goal of the purported method:** Being able to predict the EVAL for each candidate (who applies for a particular position in a particular organization) which he/she would get after working some time in the organization.

**Reasoning:** Since the EVAL reflects the satisfaction level of the employer with the employee's performance, it would be the single most important factor towards hiring a particular candidate for the target job.

**Step 1:** Test a sample of existing employees in the same organization, working at the selfsame position. Tests should include as many AT's (attributes) as possible, which could be deemed as relevant for the position. According to research, the most important AT's which influence job performance, encompass cognitive, personality, and integrity attributes.

**NOTE:** The correlation gains stability as the number comprising the sample of existing employees increases, Minimum sample for a correlation is usually 50.

**Result:** Every employee, will be graded with ATS'es (Attribute Scores) for all attributes checked.

**FIG 1 – Attribute Scores for Employees**

<u>Attribute Employee</u>	<u>Visual Memory</u>	<u>Knowledge</u>	<u>Assertiveness</u>	<u>Stress Tolerance</u>	<u>Other ...</u>
John Smith	68	91	46	88	
Patricia Brooks	55	66	78	78	
Ann Gillmor	91	92	45	55	
Other...					

**Step 2:** Every employee in the sample, should be given an EVAL (evaluation) for one or more PSC (Performance Success Criteria). The EVAL should reflect as accurately as possible, the success of the employee in that specific PSC.

**Result:**

A list of EVAL's for each tested employee.

**FIG 2 – Evaluation Grades for Employees**

<u>PSC Employee</u>	<u>Overall Performance</u>	<u>Teamwork</u>	<u>Customer Satisfaction</u>	<u>Other...</u>
John Smith	71	66	76	
Patricia Brooks	45	95	71	
Ann Gillmor	81	63	55	
Other...				

**Step 3:** A computerized program searches for strong positive correlation, between the ATS's and EVAL's of all employees. The result of the process will yield the CF (Correlation Formula) for this job. The CF is derived from only certain AT's, which appeared in the test. Many of the AT's have no contribution to the Correlation, and will not be part of the CF.

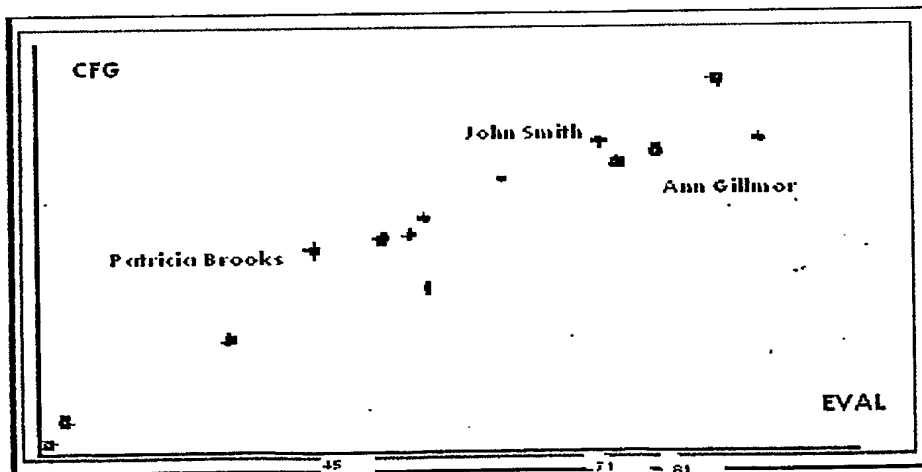
Correlation of the entire group should be checked for its level of sufficiency. In addition to the standard correlation check, another verification is done, by a series of eliminations, each time detracting one employee, from the formula, and checking him/her against that formula - This is the 'worst case scenario' yielding the lowest correlation of this model. If the worst case scenario is good enough (typically above .5), the model is proved to be very solid.

If correlation is not good enough, the following actions could be taken: a) Second review of the EVAL's, to make sure that they are accurate. b) Enhance the number of employees in the sample, in order to find a different, improved CF.

The computerized program also uses an 'Expert System' approach, i.e. using human knowledge to improve the model - Some predefined rules eliminate the need to go over all combinations (which can reach a very high number), and should serve as input to the computerized program. These rules are mostly related to 'most common combinations of AT's', since some of the combinations are not relevant.

**Result:** 1) A CF for the job. 2) CFS's for all employees who were tested in order to build it.

FIG 3 – Employees Evaluations (X axis) and CFS (Y axis)



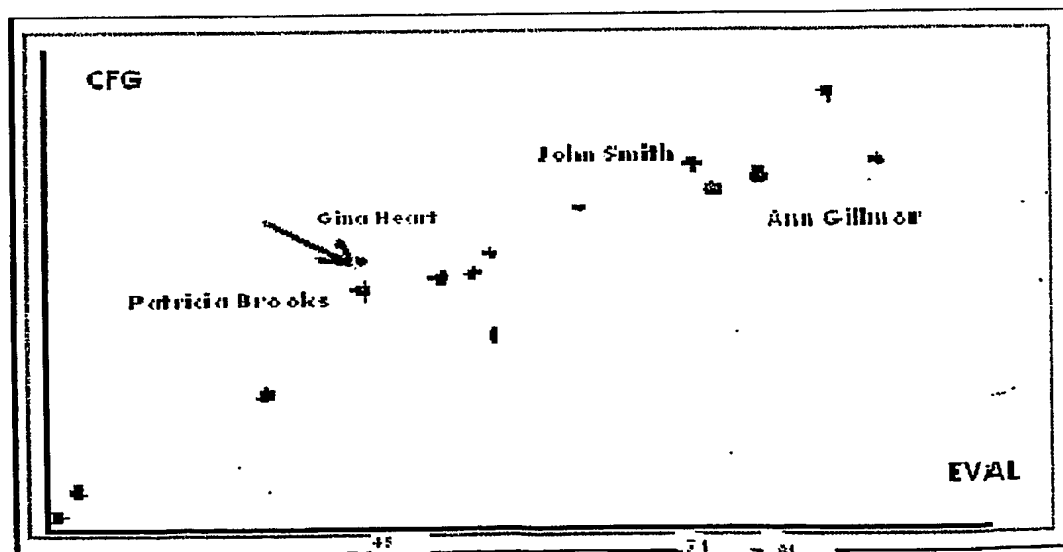
**Step 4:** New candidates are tested against the CF, which was previously identified (designated) for the job. The computerized program gives the candidate a CFS, according to the CF. The CFS enables the organization to get two crucial results:

- A. The grade given to the candidate, in respect to THE EXACT JOB in this organization.
- B. The closest employee(s) to whom the candidate's job performance will be similar to (example below: Gina Heart will be similar to Patricia Brooks).

These two parameters dramatically improve the abilities of the employers to identify the optimal candidates *for their own organization*, and they can solve many prevalent problems regarding poor judgment of candidates.

**Result:** A list of candidates with their CFS's and similarity to the existing employee base.

FIG 4 – Matching a candidate to the sample group





**Conclusion:**

Research of pre-employment screening techniques show that even in most cases it is difficult to reach validity levels (correlation) of .5, through the utilization of combinations of all the available techniques (a well known research on this subject is: The validity and Utility of Selection "Methods in Personnel Psychology: Practical and Theoretical Implications of 85 years of Research findings' (Psychological Bulletin, 1998, Vol. 124, No. 2, 262-274)".

An analysis of the method introduced above, attests a validity level **above .65 and up to .88**, which indicates a significant breakthrough in the selection/assessment field, and will have a huge impact on the huge recruitment market worldwide.

What is claimed:

1. one or more aspects of method of matching candidate selection for a job, to the requirements of a specific organization, by creating an organization-specific job profile substantially as described herein.